

PLAIN AND PRACTICAL
OBSERVATIONS
UPON
DISEASES RESULTING FROM WORMS:
WITH
REMARKS UPON THE UTILITY
OF
SWAIM'S VERMIFUGE
IN
CHOLERA MORBUS, DYSENTERY,
AND IN
ALL OTHER DISEASES
ORIGINATING IN
DEBILITY OF THE DIGESTIVE ORGANS.

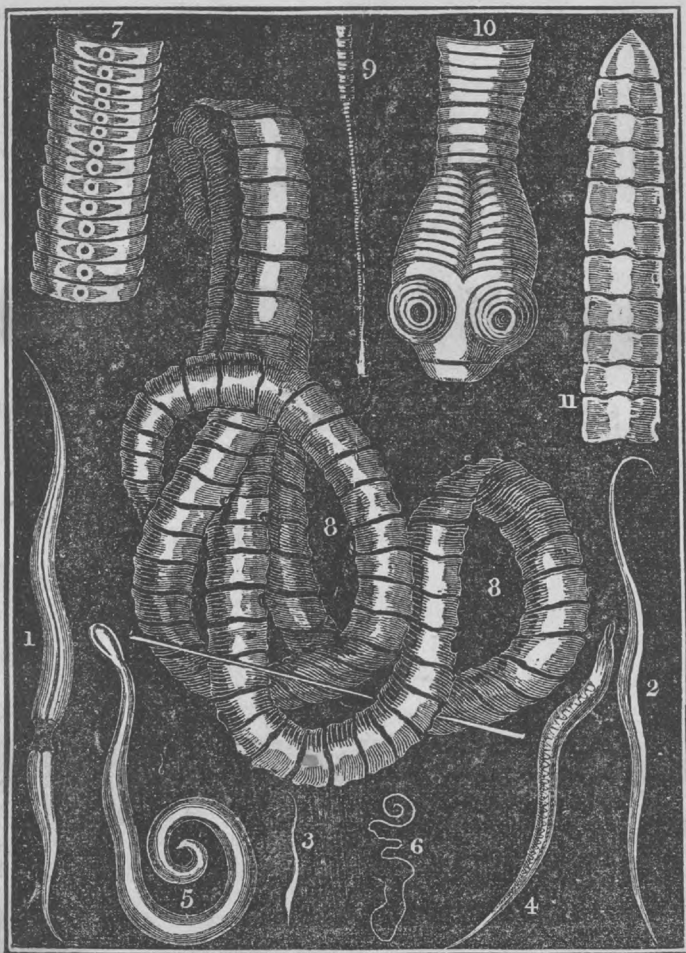
BY
WILLIAM SWAIM.

*Alph.
Berk*

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EXPLANATION OF THE PLATE.

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| Fig. 1. Female Lumbricus Teres, or Long Round Worm. | 8. A portion of the Tænia Solium, or Long Tape Worm of the natural size. |
| 2. Male Lumbricus Teres, or Round Worm. | 9. The head and neck of the Tænia Solium of the natural size. |
| 3. Ascaris Vermicularis, or Maw Worm. | 10. The head of the Tænia Solium, much magnified, showing the mouth, and four lateral suckers. |
| 4. Female Maw Worm magnified. | 11. The last joints and tail of the Tænia Solium, of the natural size, showing its mode of termination. |
| 5. Male Maw Worm magnified. | |
| 6. Trichuris, or Long Thread Worm. | |
| 7. A portion of the Tænia Lata, or Broad Tape Worm, showing the central suckers. | |

SWAIM'S VERMIFUGE.

THE subject of *intestinal worms* has occupied the attention of the profession of medicine from the earliest ages, and although much time and laborious research have been bestowed upon it, by the most celebrated physicians of every age and country, it is still involved in deep obscurity. It is, nevertheless, a subject of *great practical utility*, and should be well understood by every parent: and it is with the view of directing their attention to it, that I have been induced to issue the present publication. Physicians may differ upon the origin of worms, upon the pathological condition of the system which attends their presence in the bowels, and upon every other circumstance in relation to them—be it our design, to reveal *plain facts*, and to elucidate important and well attested *truths*.

I will not attempt to explain the *origin* of these animals. It is a question which ever has, and probably ever will, agitate the medical profession, whether worms are *introduced* into the stomach with our food and drink, or whether they are the *spontaneous production* of the human system. Each side of this question has been advocated by able, talented, and experienced writers, and supported by opposing arguments, sufficient to *bewilder* the most attentive and unprejudiced reader, in a labyrinth of doubt and perplexity. This question I conceive to be more curious than important, inasmuch as even though we were acquainted with the true explanation, we are not aware that it would aid us in preventing their appearance. It is sufficient for our purpose, therefore, to say, that if worms are introduced into the system with our aliment, they must become very much changed both in their internal organization, and in their external appearance; so much so, as to render them totally different from every species of worm found in any other situation, and also to state that upon exposure to the air, they invariably, almost immediately, expire.

It was formerly contended by some eminent physicians, and latterly by Dr. Rush, and others of our own country, that the presence of worms in the bowels, is by no means injurious to health. Some, indeed, have gone so far as to say, that they are of decided benefit, by acting the part of *Scavengers*; removing all foul and indigestible matters that may be lodged in the alimentary canal. Unfortunately for this theory, not a single fact could be adduced in its support, and it has consequently sunk into its merited oblivion. On the contrary, it is well established, that *worms are the fruitful source of many and very serious diseases*. Indeed there is scarcely a complaint which afflicts infancy and childhood, that may not be produced, or highly aggravated, by the presence of these animals in the bowels! "*Cases are recorded*," says Dr. Chapman,* "*of their producing epilepsy, chorea, (St. Vitus' dance,) tetanus, (locked-jaw,) apoplexy, mania, hydrocephalus, (dropsy in the head,) ophthalmia, (inflammation of the*

* Chapman's Therapeutics.

eyes,) perverted vision, paralysis, especially of the muscles subservient to speech, syncope, (fainting,) palpitation of the heart, hiccup, dry cough, pleuritic pains, consumption, croup, rheumatic pains of the joints, dysentery, convulsions, &c. &c. To these may be added a peculiar fever, termed *verminosa febris*. This disease presents so many of the appearances of dropsy in the head, that it may be easily mistaken for that disease."

Considering then worms as a cause, and a very serious cause too of disease, I shall proceed to point out the different varieties of these animals, and endeavour to present some facts, which may prove useful in dislodging them from the bowels.

The worms which infest the alimentary canal of the human species, are either round or flat. Of the round worms there are three species, viz: the *lumbricoides*, or common round worms; the *ascarides*, or maw worm; and the *trichuris*, or thread worm. Of the flat worms, there are but two species—the *tænia lata*, or broad tape worm, and the *tænia solium*, or long tape worm. Believing it to be an interesting, as well as important object, to be able to distinguish these several varieties of worms from each other, I will bestow upon each a cursory description.

The *lumbricus*, or round worm, so closely resembles the common earth worm, and is so familiar to every individual, that no particular description of it is required. Indeed it has been asserted by some to be the same animal, modified by its location and food. But that this is not the fact, may be readily proved by a minute inspection, when it will be found to differ in several very essential points. The length of this worm is from four to ten or twelve inches; it usually inhabits the small intestines, and is often found in the stomach.

The *ascarides*, or maw worms, are very common, and are often discharged in astonishing numbers. "They are round, thread-like, very slender, and not more than from a quarter of an inch to an inch in length."* This worm has a rounded head, and terminates in a fine point at the tail, resembling the point of the finest needle. They are commonly most abundant in the large intestines, and especially just within the fundament. Brera, in his excellent work upon verminous diseases, states, that they are found in the bladder, vagina, œsophagus, stomach, &c., and very frequently occasion great distress, by the violent irritation they produce.

The *trichuris*, or short thread worm, is very rarely seen. It is a thin, spiral worm, from one to two inches in length. About two-thirds of its length it is as thin as a horse-hair, the posterior part being thicker, and terminating in a blunt extremity. It is said by Dr. Chapman to have a *proboscis*, which it can protrude or withdraw at pleasure. I have never seen one of these worms.

The broad tape worm is not very often met with. It is flat,

* Eberle's Therapeutics.

white, from a half to three quarters of an inch in breadth, and from five to twenty or thirty feet in length. In appearance, it very much resembles a piece of broad white tape, from which circumstance it has obtained its name. Its head is armed with two fangs, by which it attaches itself so firmly to the bowels, that it is almost impossible to disengage it. Its body is broad in the middle, tapering gradually to a point at the head.

The *long tape worm* is much more frequently observed. It is sometimes of immense length; Brera speaks of one which exceeded *two hundred and thirty feet*. It is divided by a great number of joints, into pieces about half an inch square. These pieces closely resemble gourd seeds, to which they have been compared: they are each said to possess independent vitality, and to be capable of reproducing the worm. But this has lately been denied. The head and neck are very small, the head terminating in a fine point; the tape worm selects for its food, the *chyle and juices already digested*.

Children, from the *first to the fifth year of their age*, are most apt to be infested with worms. Various reasons have been advanced to account for this fact, but they are all more or less unsatisfactory and objectionable. The most prevalent idea is, that their presence is owing to the *superabundance of mucus* which exists in the bowels during this period of life, which is said to serve as a *matrix* or *nidus* for their production, growth, and support. This opinion, it is thought, is supported and confirmed by the fact, that worms also inhabit the bowels of persons of *mature, and particularly of advanced age*, in whom this superabundance of mucus is discovered. But this theory, it appears to me, does not extend sufficiently far. To what cause are we to attribute this excess of mucus, in persons infested with these animals? Is it natural to childhood and advanced age, or is it the *result of disease*? This is a question of very material importance, which has been wholly lost sight of by writers upon verminous affections. Upon the solution of this question, depends their whole pathology and mode of treatment. Let us then appeal to facts, and to the testimony of the ablest writers for an answer. We find that the individual, be he of tender, mature, or advanced age, who is possessed of a sound constitution and good health, is rarely, if ever, afflicted with worms. On the contrary, it is in the weak, debilitated, depraved and cachectic habits, that they almost invariably prevail. Can it for a moment be supposed, that the worms in these cases owe their origin to an excess of mucus in the bowels? In my own mind, there exists not the least shadow of a doubt, that this mucus, and the worms which accompany it, are both to be attributed to the same cause—namely, *debility of the bowels*. This weakness of the bowels induces relaxation of their vessels, and hence the increased secretion of mucus. Where the digestion is vigorous, and the general condition of the bowels healthy,

worms can find no habitation; in fact, they cannot resist the *powers of digestion*.

This view of the case satisfactorily explains the fact, that *aged and feeble individuals, and especially females of a delicate constitution*, are exceedingly subject to worms. To account for this circumstance upon any other cause, would be as vain as it is absurd.

But I do not rest the fact of the debilitated condition of the bowels attending the existence of worms, upon my own assertion—it has the sanction of the highest medical authority. *Dr. Chapman* states that “*every species of worms seems to have its origin and support in a weak and depraved condition of the digestive organs.*” Again he says, “in all cases of diminished strength and emaciation of frame, however induced, and especially if the bowels share in this debilitated state, we may, in a child, suspect either their existence, or speedy generation.”* *Dr. Gregory*, in his late and excellent work upon the practice of medicine, says, that “it cannot be doubted, that a *weak state of the digestive organs*, is that which principally leads to the production of worms, and this is an object of the *first importance with a view to treatment.*”† *Dr. John M. Good*, than whom there is no higher authority in the medical world, uses the following emphatic language—“There is yet great space for *improvement in the mode of treating this complaint.* The larger worms unquestionably are found most frequently in young persons, or persons of *weakly and inelastic fibres, and dysthetic habits*; and hence, our *first intention should be to invigorate the system generally, and the stomach and intestines particularly.*”‡ THIS I AM CERTAIN WILL BE FOUND BY THE USE OF THIS MEDICINE. Other quotations, equally strong and explicit, could be adduced from authorities highly respectable, were it deemed necessary. These, however, are amply sufficient to satisfy every unprejudiced individual of the fact, that the origin, development, and support of these animals, are to be attributed to a *depraved and debilitated condition of the stomach and bowels.*

The *symptoms* which arise from the irritation of worms in the bowels, and which, with some degree of certainty, indicate their existence, are as follows:—The countenance is pale, of a leaden colour, and suffused with occasional flushes, the eyes are heavy and dull, the breath is fetid, the upper lip is swelled, the mouth is watery, there is a *livid circle* around the eyes, the nostrils are swelled, and there is a great itching in them, which causes the patient to *pick his nose*. The *sleep is disturbed*, the patient often awakening in great fright, and is liable to *starting and grinding the teeth*. There is occasional headache, tingling in the ears, palpitation at the heart, giddiness, occasional nausea and vomiting, interrupted speech, and a *dry spasmodic cough*. The *appe-*

* *Chapman's Therapeutics*, vol. 2. † *Gregory's Practice*, vol. 2, p. 351.

‡ *Study of Medicine*, vol. 1.

tite is exceedingly irregular, being sometimes *voracious*, at others *feeble*, and in some instances it is *depraved*—the child soliciting indigestible, and sometimes disgusting articles of food, such as *dirt, chalk, &c.* The *bowels* are alternately *loose* and *costive*, the stools being unnatural, slimy and disagreeable. There are transient pains in the stomach, particularly about the navel; the stomach is hard and swelled, with great wasting of the flesh in other parts of the body, bleeding at the nose, irritability of temper, lassitude, convulsions, palsy. Brera, one of the most profound writers upon this subject, states, that persons infested with worms are peculiarly averse to hearing *music*, and particularly that of the *organ* at church.

It should, however, be mentioned, that worms sometimes exist in the bowels, without exciting any of the symptoms above enumerated, and also, that many of the symptoms detailed may exist, and yet be unaccompanied by worms. Debility of the bowels alone, but more particularly, if attended by any source of irritation in the stomach and bowels, will create evils similar to those of worms, and require the same remedies for their relief. So great is the ambiguity of the symptoms by which the presence of worms in the bowels may be suspected, that the voiding of them is said by some medical writers of great repute, to be the only certain characteristic sign of their existence. It is, however, laid down as a general rule by Dr. Chapman, "that worms may be suspected in a child, where there is emaciation, and especially weakness of the bowels, accompanied by discharges of slime or mucus."

Such being a brief and cursory description of the evils which result from the presence of worms in the bowels, every individual must at once be struck with the importance of the subject, and the propriety of making it the object of a careful and attentive study. This duty is rendered the more imperious, by the uncertainty which is acknowledged by the most respectable physicians, to attend their existence—the remedies adapted to their expulsion, and to the prevention of their return, and indeed the ignorance or apathy existing among physicians generally, regarding almost every circumstance in connection with them. It is with the view of directing the attention of parents and guardians to this subject, and to induce them to study and examine into it *for themselves*, that I have been led to issue the present publication. Should it be the means of detecting the nature of the disease, with which thousands of our children and enfeebled adults are afflicted, I shall be fully repaid.

The *remedy* to which I would call the attention of the public, is one which has proved successful these fifteen years past, and it is universally acknowledged by all who have tried it, to be far superior to any other medicine ever employed in diseases for which it is recommended. It is perfectly safe, and no child will refuse to take it.

Much mischief is often done by the ordinary worm medicines, which generally consist of the strongest purgatives—calomel, *that destroyer of the constitution*, bitters, pink root, spirits of turpentine, worm seed oil, &c. Articles of this kind may destroy worms, but they debilitate the stomach, and often materially injure the general health, without removing the cause. *Swaim's Vermifuge* has the peculiar advantage of removing the cause of worms, by giving vigour and healthy action to the stomach and bowels, and organs of digestion—thereby relieving many troublesome complaints.

I have shown, and I think from the most respectable authority, that worms infest the bowels of *weak* and *cachectic* individuals—altering or destroying their *appetite*, producing *pain* in the stomach, *foul breath*, *sick headache*, *flatulency* or *wind*, and many other symptoms, which conclusively demonstrate a *depraved* and *debilitated condition* of the *stomach* and *bowels*. I have too, I think, established the fact, that where the digestion is unimpaired, and the general powers of the system in a healthy state, worms can find no habitation. Now it is evident, that if I can restore to the depraved and debilitated stomach and bowels, their healthy digestion and wonted tone and vigour, these animals would be unable to live, and the consequence would be, that they would be immediately expelled, and their subsequent production rendered impossible. This is exactly the method by which the *Vermifuge* acts in the expulsion of these animals, and in the relief of the disagreeable and dangerous consequences to which they give rise. To expel worms, and leave the bowels in a state favourable to their reproduction, would be like pruning off the branches of a tree to prevent its future growth: its shade, it is true, would be destroyed for a season, but it soon puts forth new leaves and blossoms, and bears fruit fifty, or perhaps a hundred fold.

Incalculable as are the advantages to be derived from the *Vermifuge* in *verminous affections*, its powers are no less surprising and beneficial in many other diseases originating in debility, or a depraved condition of the stomach and bowels. Of its utility in *dysentery*, I am able, from a very extensive experience, to speak with the greatest confidence. Its immediate effects are to *tranquillize the stomach*—*check the vomiting*—*allay the griping pains*—*relieve the excessive purging*—and in the generality of cases in which it is administered, *it arrests the progress of the disease in a few hours*.

In **Cholera Morbus**, and most probably in the **Indian Cholera**, diseases depending upon a similar cause for their origin, the *Vermifuge* proves of inestimable value. It clears the stomach from acidulous phlegm, increases the gastric juices, and thereby promotes healthy digestion; putting an *immediate stop* to the disease, and relieving all their *painful and dangerous concomitants*. Many cases might be cited in proof of its efficacy in this disease, but they are deemed unnecessary. A *simple trial* of

its powers will be amply sufficient to satisfy the most sceptical on this point.

Diarrhæa, and all other bowel complaints, produced by debility of the stomach and bowels, are very early arrested and *completely cured*, by the administration of the Vermifuge.

Of its efficacy in *bleeding piles* I have had abundant experience. Under its use the *flow of blood ceases*, the *pain is allayed*, and the disease *subdued*. Such a remedy, in this disease, has long been much needed, and the Vermifuge will, it is presumed, be found to supply the deficiency.

In that species of the disease called *blind piles*, it is no less efficacious. It is well known that this disease frequently gives rise to *prolapsus ani*, or *falling down of the fundament*, which is the cause of much suffering, and is by the remedies in common use, almost incurable. It may appear surprising that such a variety of diseases should be relieved by the Vermifuge; but when it is taken into consideration that they all depend upon debility of the bowels, we at once are able to ascribe its beneficial effects to its tonic properties.

IN Fever and Ague IT IS A MOST EXCELLENT MEDICINE. I have seen a great number of persons labouring under this disease, relieved in a very short space of time! In several cases of *very long standing*, which had resisted the remedies of some of our most respectable physicians, perfect cures were performed by the Vermifuge. It has this advantage, too, over the remedies in common use—that it *prevents relapses*.

The tonic and invigorating effects upon the stomach and bowels, produced by the Vermifuge, render it serviceable in a great variety of *troublesome and dangerous complaints*. It is thus that *adults*, as well as *children*, have been relieved by its use, of *dyspepsia*, *colic*, *sick headache*, *foul stomach*, and the whole host of disagreeable effects, consequent upon *bilious disorder*. In every disease which has its origin in debility or disorder of the stomach and bowels, this remedy must and will prove beneficial. When we reflect upon the vast number of complaints which originate in the stomach, and when we take into consideration the fact, that these diseases are of great difficulty of management, and frequently very dangerous in their consequences, we cannot but anticipate that the Vermifuge will be found of signal efficacy in many diseases, in which it now forms no part of the treatment. Physicians themselves, it is hoped, will, when they witness its effects, take the remedy into their own hands, and I fear not to put it to the test of their most *strict and searching scrutiny*. Administered under the sanction, and with the advice of the *experienced physician*, its effects could not fail of proving highly satisfactory to the physician, and serviceable to the patient.

Did the limits of this publication admit of it, certificates from individuals of the first respectability, in every quarter of the United States, might be adduced in proof of the advantages to be

derived from the Vermifuge, in the cases detailed. I have by me, at this moment, many letters from individuals of high standing, speaking in the most flattering terms of this medicine.—To publish them all, would render this volume more bulky than I wish. The following extracts, however, I cannot refrain from adding in this place.

“The first case in which the medicine was given, and which *alone*, without the aid of *any other evidence*, is sufficient to establish its *excellence*, was a child of four years old, who had become so enfeebled and debilitated by fever and ague, that the doctor pronounced it *incurable*. In this state of the case, *Swaim's Vermifuge* was given, and without stopping to give the *modus operandi* of the medicine, it is only sufficient now to state, that in *twenty-four hours the child was relieved*.

“The other was the case of an *adult*, who had laboured for two years under a most distressing *habitual diarrhœa*, which had produced great debility of the whole system. After taking a table-spoonful of the Vermifuge night and morning, as directed, for three days, he was so entirely relieved as not to require the use of any further remedy.

“The third was a case of *intermittent fever*, in which this medicine seems to have a *peculiar efficacy*. It was a girl twelve years old, who had a regular return of *chill* every other day, succeeded by violent and *profuse sweating*. To her, half a table-spoonful of the Vermifuge was given early in the morning and at night; and, astonishing as it may appear, the second dose suspended, indeed, I may say, *cured the disease*—for it has not recurred since. With the chill, the profuse sweating ceased, and the patient is in every way renovated.”

A highly respectable physician of this city, whose name will be made known if required, has kindly furnished me with the following case which occurred in his own family:—

“During the inclemency of the present season, my son, aged twelve months, was attacked by a severe and continued purging of slime and blood. For its relief, recourse was had to all the remedies usually employed. The disease, however, daily grew worse, and I began to entertain some apprehensions as to the probable issue of the case. Having an exalted opinion of the merits of your Vermifuge in such cases, I determined to give it a trial. Only three tea-spoonfuls were given, and so immediate were its effects, that perfect relief was experienced, and he has continued in perfect health.”

Before concluding this publication, I think it proper to lay before my readers some extracts from a letter just received from a very respectable physician, residing in the neighbourhood of this city. The first case in which he was induced to administer the Vermifuge, was a child two years old. This case had been under treatment nine months; during which time the child had laboured under extreme debility, accompanied by great emaciation of the

body, and severe convulsive fits. All the remedies used by physicians for the expulsion of worms, had received a fair trial, without producing the slightest beneficial effect. Despairing of effecting a cure by the ordinary routine of practice, he resorted to the Vermifuge. On the third day of its exhibition, a great number of worms were discharged; the fits ceased, the child rapidly improved, and is now quite well and fat. From its valuable effects in this instance, the mother of the child strongly recommended it to a neighbour, who administered it to her child with equally beneficial effects.

A boy, aged five years, had been labouring under an obstinate intermittent fever several months, attended with cough, pain in the stomach, diarrhoea, and night sweats. He had recourse to the Vermifuge, and, astonishing as it may seem, in four days the child was perfectly cured.

The third was a case of low fever. After employing the remedies commonly prescribed a few days, and finding the child daily getting worse, he administered the Vermifuge as a febrifuge. Its virtues soon manifested themselves: the child in a few days was perfectly restored, and has had no return of the disease.

Four other cases are added, in all of which the Vermifuge proved completely successful in removing the disease, and in promoting a speedy convalescence.

The following remarks conclude the letter—"Swaim's Vermifuge, when properly administered, cannot fail in proving a most inestimable remedy in diseases of children, more especially, in cases of worms, and debility resulting from the several varieties of fevers. In adults, also, it will prove beneficial in many cases of that Protean disease—dyspepsia; and in many other affections depending upon debility of the stomach and bowels. Under the use of this invaluable remedy, a gentleman whom I attended, discharged a tape worm, three feet and nine inches in length. So highly do I appreciate the merits of the Vermifuge, that I can assure you, I shall hereafter keep on hand a regular supply of it for administration in a great variety of the diseases of adults as well as children."

Extract of a Letter from Dr. Edward Sill, dated Columbia, S. C. Sept. 5, 1835, to Wm. Swaim & Son, Philadelphia.

"It is the chief object, however, of this hasty letter, to give you some idea of the estimate in which the Vermifuge is held, in every instance (without a single exception) where it has been used.

"The article was entirely unknown in this part of the country; and from your earnest representations of its value, I had no hesitation in recommending it in the cases specified—and the result is, as I have hinted above, the most perfect satisfaction. In two or three instances that were detailed to me by persons entitled to credit, and who could have no motive for making misstatements,

its influence appears to have snatched from the very grave the emaciated and exhausted little sufferers to whom it was administered; and that, too, after the best medical skill of our community had been ineffectually resorted to.

"Indeed, judging from what I have seen and heard of it, I deem it not only perfectly innocent and safe, but of great power, in a wide range of those anomalous complaints of children, especially in towns and cities, depending on a deranged and weakened condition of the abdominal viscera, especially the stomach and bowels; and for which we have no fixed or satisfactory treatment."

Such, then, being the efficacy of this remedy in the great variety of fevers in adults as well as children, and such being the uncertainty attending the administration of the common remedies, I trust no further evidence will be required, to establish the utility of the Vermifuge, in all the diseases specified. Indeed, if my anticipations are realized, the VERMIFUGE will, ere long, in the affections of the digestive organs, rival that most inestimable restorative, the PANACEA. Be this, however, as it may, with these two valuable remedies, I should not fear to encounter many of the most complicated forms of disease, that destroy the health, and with it mar the happiness and prosperity of a great portion of the human family.

It is my humble opinion, that by purifying the blood, and giving healthy action to the stomach and organs of digestion, the most formidable diseases we are now subject to may be relieved.

I will conclude with the remark, that the Vermifuge contains neither mercury, arsenic, bark, quinine, nor any other drug in the slightest degree deleterious to the most tender and delicate infant. It has been given to infants on the day after their birth with positive beneficial effects—though at the same time, it is no less powerful in relieving the affections of the most robust and athletic man. To the *truth* of this fact, I am willing to pledge my sacred honour, which is to me dearer than any considerations of gain. AND IT IS MY DELIBERATE OPINION, THAT THIS MEDICINE WILL CURE MORE THAN TWO-THIRDS OF THE DISEASES TO WHICH CHILDREN AND AGED INDIVIDUALS ARE SUBJECT.



☞ Prepared at Swaim's Laboratory, Philadelphia, and sold by every respectable Druggist in the United States.

Retail price—One Dollar for the large vials; 50 cents for the second size; 25 cents for the smallest.

A liberal discount made to wholesale purchasers.